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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,303	07/03/2003	Anthony G. Warren	47230-10	3203
7590 08/10/2005				
BENNETT JONES 4500 Bankers Hall East 855 - 2nd Street SW Calgary, AB T2P 4K7 CANADA		EXAMINER HOOK, JAMES F		
		ART UNIT 3754 PAPER NUMBER		

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,303

Applicant(s)

WARREN ET AL.

Examiner

James F. Hook

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-16 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1-28-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on June 27, 2003. It is noted, however, that applicant has not filed a certified copy of the Canadian application as required by 35 U.S.C. 119(b).

Election/Restrictions

Claims 19-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 9, 2005.

Specification

The use of the trademark KEVLAR has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 7, 9, 11, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulligan in view of Rider. The patent to Mulligan discloses the recited high pressure flexible conduit comprising a conduit liner 20 formed of a flexible material where the extrusion of such is merely a method step which would not change the final product, however, it is believed that even though Mulligan does not state the layer is extruded, such is the known way to form a seamless layer as is formed in Mulligan so it is believed that such is extruded as well, a seamless fibrous sleeve 30 which is braided in a continuous manner and fitted around the liner, where the fibers can be formed of ultra high molecular weight polyethylene (UHMWPE) and aramid fibers as well, and connectors 14 are provided at the ends of the conduit. The patent to Mulligan discloses all of the recited structure, including that there appears to be nothing connecting the braided layer to the liner, with the exception of the fibrous sleeve has a freedom of motion independent from the liner, and providing a protective layer encompassing the outer surface of the fibrous sleeve made of an overweave. The patent to Rider discloses the recited high pressure flexible conduit comprising a liner 12, a first braided seamless fibrous sleeve 20, and a second protective fibrous sleeve 22 which can be provided over the first sleeve for protection, where end connectors 14 are provided, and the fibrous sleeve 20 is loose and free to move independent of the liner. It would have been obvious to one skilled in the art to modify the fibrous sleeve of Mulligan by providing such with freedom of motion by leaving the sleeve loose which would inherently improve flexibility, and to provide a overweave sleeve over the fibrous sleeve to protect the fibrous sleeve from damage as suggested by Rider where such will

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make a more flexible and more protected hose that will extend it's life and thereby save money in early replacement costs.

Claims 2, 5, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulligan in view of Rider as applied to claims 1, 4, 7, 9, 11, 14, and 16 above, and further in view of Crisman. The patent to Mulligan as modified discloses all of the recited structure with the exception of disclosing what material is used for the inner liner, specifically linear low density polyethylene (LLDPE). The patent to Crisman discloses that it is old and well known in the art to form liners of hoses with braided protection 18 and connectors 14, where the liner material used can be any of various types of plastics including LLDPE which is extrudable. It would have been obvious to one skilled in the art to modify the liner of Mulligan as modified to be formed of any suitable plastic material including LLDPE as suggested by Crisman where such is a known material used for liners of reinforced hoses, where the material chosen would meet the needs of the user and the environment in which the hose was intended to be used, and such is a known material used as liner or core material in such hoses.

Claims 3, 6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulligan in view of Rider as applied to claims 1, 4, 7, 9, 11, 14, and 16 above, and further in view of Harpell. The patent to Mulligan as modified discloses all of the recited structure with the exception of disclosing how the UHMWPE fibers are formed, including using a gel spun method. The patent to Harpell discloses that it is old and well known in the art to form fiber reinforcements of UHMWPE where such is formed by gel spinning to create a stronger fiber. It would have been obvious to one skilled in the art to modify

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UHMWPE fibers of Mulligan as modified to be formed by using a gel spun method to form the fibers as suggested by Harpell where such is a known method used to form UHMWPE fibers where such a method creates a stronger fiber which would increase the strength of the layer in the hose and reduce costs by increasing useful life and reducing early replacement of the hose or sleeve.

Claims 1, 4, 7, 9, 11, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berlincourt in view of Rider. The patent to Berlincourt discloses the recited high pressure flexible conduit comprising a conduit liner 2 formed of a flexible plastic material where the extrusion of such is merely a method step which would not change the final product, however, it is believed that even though Mulligan does not state the layer is extruded, such is the known way to form a seamless layer as is formed in Berlincourt including an outer protective layer so it is believed that such is extruded as well, a seamless fibrous sleeve 3 which is braided in a continuous manner and fitted around the liner, where the fibers can be formed of aramid fibers such as KEVLAR, where a second braided layer or an extruded fluoropolymer cover layer can be provided over the first braided layer to protect it. The patent to Berlincourt discloses all of the recited structure with the exception of the fibrous sleeve has a freedom of motion independent from the liner, and providing connectors. The patent to Rider discloses the recited high pressure flexible conduit comprising a liner 12, a first braided seamless fibrous sleeve 20, and a second protective fibrous sleeve 22 which can be provided over the first sleeve for protection, where end connectors 14 are provided, and the fibrous sleeve 20 is loose and free to move independent of the liner. It would have been

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obvious to one skilled in the art to modify the fibrous sleeve of Berlincourt by providing such with freedom of motion by leaving the sleeve loose which would inherently improve flexibility, and to provide connectors to allow such to be more easily connected to other hoses or other items as suggested by Rider where such will make a more flexible, and an easier to connect, hose that will extend it's life and versatility, thereby save money in early replacement costs.

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berlincourt in view of Rider as applied to claims 1, 4, 7, 9, 11, 14, and 16 above, and further in view of Parsonage. The patent to Berlincourt as modified discloses all of the recited structure with the exception of using polyurea as the cover layer. The patent to Parsonage discloses that it is old and well known in the art to form outer cover layers of hoses with polyurea in place of fluoropolymers. It would have been obvious to one skilled in the art to modify outer protective layer in Berlincourt as modified to be formed of a polyurea material as such is a suitable replacement material for fluoropolymers as suggested by Parsonage where such is a known suitable replacement material used for protective layers in multilayer tubes when fluoropolymers are used, where such would provide different material properties to the protection layer to meet environmental needs and would protect the inner layers better in certain environments thereby reducing replacement costs and saving money.

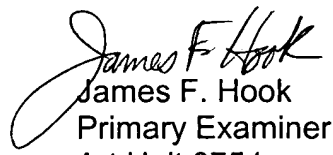
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Washkewicz, Zachariades, King, Albino, Ikeda, Martucci, and Molnar disclosing state of the art reinforced tubes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James F. Hook
Primary Examiner
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